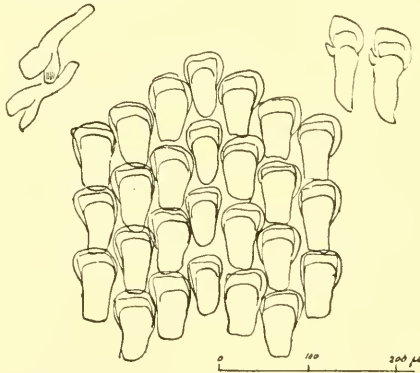


ON THE RADULA AND MAXILLA OF *OXYSTYLA UNDATA*
(BRUG.).

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IN a specimen of this species¹ placed at my disposal by Mr. B. B. Woodward the extended radula is 10·2 mm. long and 8·5 mm. wide. It has 162 transverse rows of unci, and the middle row has 120 on each side of the central. The posterior margin is convex, the sides parallel, and the anterior margin semicircular. In consequence of the convexity the rows begin early to take an oblique direction, and a line of arrested growth in the anterior third of the specimen shows that all unci in each row become operative at the same time, so that the part presenting in the oral cavity has the appearance of an inverted V. The maxilla is sharply arched below in correspondence with this form; it is composed of imbricated plates in two series, a fundamental row with vertical direction as in normal Helicids, and a superimposed oblique row; the central or sub-central lamella of this row forms the triangular piece described by Binney as characteristic of Orthalicinæ.



The fusion in my specimen was very thorough, none of the plates being separable after maceration in hypochlorite solution. This form of maxilla is probably secondary to the wide oblique-rowed radula, and I suggest that this is the essential Orthalicine character. The radula precedes the maxilla in developmental history.

The appended sketch shows the curious unci of *Orthalicus*. The enlargement of the apices seems to have brought about the obliquity of the rows; enlargement of the alæ is found in cases where the opposite kind of obliquity occurs (e.g. in *Succinea*, *Punctum*). And this enlargement of apices may be directly occasioned by the breadth and bluntness of the cones; no apex, but extended ala, is found in the numerous multicuspid unci of Pectinibranchs and small Pulmonates.

¹ Often referred to as *Orthalicus zebra* (Müller).